Change leadership and public sector organizational change:

Examining the interactions of transformational leadership style and red tape

Abstract

The implementation of organizational change is a considerable challenge for public organizations. Recent studies have highlighted the importance of leadership in change processes in public organizations, but limited empirical evidence exists. Moreover, the contribution of change leadership in organizational change is likely to be dependent on the particular characteristics of public organizations. This study concerns the relationship between direct supervisors’ change leadership and the commitment to change of change recipients, and examines to what extent this relationship is affected by the bureaucratic features that often characterize public organizations. The findings indicate that change leadership contributes to change recipients’ commitment to change by providing high quality change communication and stimulating employee participation in the implementation of change. However, the findings also indicate that bureaucratic red tape and a low reliance on a transformational leadership style impede the potential of change leadership to bring about employee participation in the implementation of change.

Keywords: Change leadership, red tape, transformational leadership, commitment to change, communication, participation, change management, organizational change.
1 Introduction

In times of financial austerity and cutbacks, there is a great need for public organizations to implement organizational change. However, the implementation of organizational change is generally a challenge for organizations (Burke, 2002). The implementation of change is much more complex and unpredictable than the initiation and planning for organizational change (Brunsson, 2009). This may be especially the case in public organizations, as their environmental and structural characteristics arguably further increase the difficulties that are associated with implementing organizational change (McNulty & Ferlie, 2004; Van der Voet, Groeneveld & Kuipers, 2014). Many studies have highlighted the importance of leadership in order to overcome the difficulties of organizational change in the public sector (Fernandez & Rainey, 2006; Stewart and Kringas, 2003; Hennessey, 1998). However, one of the problems associated with leadership is that it qualifies as a ‘magic concept’ (Pollitt & Hupe, 2011), in the sense that the term leadership has a broad scope and positive spin, and is often used with great flexibility.

The literature on transformational leadership (Bass, 1985) and change management (Fernandez & Rainey, 2006; Burke, 2002) highlight the importance of leadership during organizational change in different ways, and there have been limited attempts to integrate these literatures (Herold, Fedor, Caldwell, & Liu, 2008). Some studies have examined to what extent transformational leadership may contribute to commitment to change of change recipients (e.g. Oreg & Berson, 2011; Herold et al., 2008). These studies show how transformational leaders transform followers to go beyond their individual motivations and interests, thereby indirectly stimulating them to support organizational change (Bass, 1985). However, as the transformational leadership style is not directly aimed at making followers more
supportive of a specific organizational change (Eisenbach, 1999; Higgs & Rowland, 2011), such studies fail to encompass the leadership behaviors that are outlined in the literature on change management (e.g. Fernandez & Rainey, 2006; Herold et al., 2008; Higgs & Rowland, 2011). Change leadership behaviors are specifically aimed at furthering the implementation of an intended, planned organizational change initiative. Among others, Fernandez and Rainey (2006) outline change leadership behaviors such as ensuring the need for change, providing a vision and a plan, building support and commitment for change, and monitoring the implementation process. Following Higgs and Rowland (2010), change leadership is defined in this study as the behaviors of direct supervisors aimed at framing and shaping organizational change, and creating capacity among change recipients to implement the change. Most studies that argue for the importance of change leadership behaviors in the public sector are case studies using qualitative methods (Kuipers et al., 2014). As a result, there is little imperial evidence about how and to what extent change leadership contributes to processes of change (Fernandez & Pitts, 2007; Herold et al., 2008; Burke, 2002).

This study focuses on the role of change leadership in processes of organizational change from the perspective of change recipients. The way employees perceive and respond to organizational change can greatly determine the degree to which an organizational change achieves its intended objectives (Walker, Armenakias & Berneth, 2007). The first intended contribution of this study is to assess the relationship between direct supervisors’ change leadership and change recipients’ commitment to change. Commitment to change is argued to be an important condition for the successful implementation of change (Herscovitch & Meyer, 2002). Rather than a direct relationship between these concepts, change leadership contributes to
high quality change communication and a high degree of employee participation in the implementation of change, thereby indirectly creating commitment to change among change recipients.

The second intended contribution of this study is to examine to what extent the particular organizational characteristics of public organizations affect the role of change leadership, thereby adding to the literature on change management in the public sector (e.g. Kuipers et al., 2014; Van der Voet, 2014; Wright, Christensen & Isett, 2013; Isett, Glied, Sparer & Brown, 2013; By & Macleod, 2009). Change processes are dependent on the context in which they take place (Pettigrew, Woodman & Cameron, 2001). This study examines to what the relationship between change leadership and commitment to change is affected by organizational red tape and the leadership style of direct supervisors. These are relevant factors because of the bureaucratic nature that is often attributed to public organizations (Rainey, 2014; Boyne, 2002). Because of their bureaucratic nature, public organizations are typically expected to be characterized by considerable levels of red tape (Bozeman, 1993; Pandey & Kingsley, 2000) and have low reliance on a transformational leadership style by managers (Wright & Pandey, 2010; Pawar & Eastman, 1997; Shamir & Howell, 1999). In the following section, it is argued that these bureaucratic features may impede the potential of change leadership to contribute to commitment to change. The main research question is: How is change leadership related to change recipients’ commitment to change, and to what extent is this relationship moderated by the bureaucratic features of public organizations?

2 Theoretical framework and hypotheses
The relationship between change leadership and commitment to change

In the past decade, several studies have aimed at the implementation of organizational change in the public sector (e.g. McNulty & Ferlie, 2004; Fernandez & Rainey, 2006; Fernandez & Pitts, 2007; Van der Voet, Kuipers & Groeneveld, 2014). Similar to studies conducted in private sector organizations (Higgs & Rowland, 2010, 2011; Herold et al., 2008), leadership is often highlighted as a central factor in processes of change in public organizations (Stewart and Kringas, 2003; Hennessey, 1998). The literature on change management contains many prescriptive models of how change leaders can contribute to the implementation of organizational change (Kotter, 1996; Fernandez & Rainey, 2006). Although such models are different in details and emphases, most models are similar in the sense that they stress formulating a change vision, communication, empowering employees and consolidating or institutionalizing the change. Typical change leadership activities include developing a vision and implementation plan, communicating the vision of change, being a good role model and motivating employees to implement the change (e.g. Fernandez & Rainey, 2006).

In both the practitioner and scientific literature on change management, authors argue that change leadership may contribute to ‘successful’ organizational change (e.g. Kotter, 1996; Self & Schraeder, 2009; Higgs & Rowland, 2011). However, prescriptive change leadership models are seldom based on a systematic comparison of successful and unsuccessful changes. There is relatively little empirical evidence concerning the contribution of change leadership (Burke, 2002; Herold et al., 2008), especially in the public sector (Kuipers et al., 2014; Fernandez & Pitts, 2007). An associated problem is that change success is a subjective and multi-
interpretable term. Because little will change without the support of employees, many studies therefore focus on employee attitudes toward change (e.g. Wright, Christensen and Isett, 2013; Van der Voet, 2014). This study examines the relationship between change leadership and change recipients’ commitment to change. Commitment to change is defined as “a desire to provide support for the change based on a belief in its inherent benefits” (Herscovitch & Meyer, 2002: 475).

Change leadership is aimed at inducing favorable attitudes among change recipients concerning change. Change leadership is therefore expected to be positively related to commitment to change. By engaging in change leadership behaviors, direct supervisors contribute to two change process characteristics that are positively related to support for change among change recipients. These characteristics are high quality change information and employee participation in the implementation of change (Walker et al., 2007; DeVos, Bueelsen & Bouckenhooghe, 2008; Rafferty & Restubog, 2010). Herold et al. (2008) argue that communicating about the change and providing individuals the opportunity for inputs are important aspects of change leadership. Rather than a direct relationship, change leadership contributes to commitment to change among change recipients by improving the quality of change communication and the degree of employee participation in the implementation of change.

Change leadership approaches typically stress communicating the sense of urgency, vision of change and implementation plans (e.g. Fernandez & Rainey, 2006). Walker et al. (2007: 762) state that “change agents must prepare employees for change through open, honest communication.” By explaining to employees why change is necessary, employees may better understand and support the implementation of change. Moreover, the implementation plan must be clearly communicated to employees, so that employees are aware of the scope and time
planning of the implementation process (Van Dam, Oreg & Schyns, 2008). When the implementation process is based on high quality communication, there are little surprises and uncertainty concerning the changes being implemented. High quality change communication ideally 1) addresses why the change is necessary by demonstrating that the organization is not where it should be, 2) expresses that employees can succeed in implementing the change, 3) successfully argues that the measures that are being taken are appropriate, 4) convinces employees that they will be supported during the implementation of change, and 5) emphasizes that an employee’s self-interest is not at stake because of the change (Armenakis & Harris, 2002). By improving the quality of change information that is available to change recipients, change leadership is thus expected to be positively related to change recipients’ commitment to change.

Change leadership models also stress stimulating and empowering employees to participate in the change (Herold et al., 2008). Employee participation is often seen as an important way of creating support for change among change recipients. Participation may give change recipients a feeling of ownership and control over the change, thereby making the change less threatening (DeVos et al., 2008). Participation may also contribute to the quality of the change that is being implemented (DeVos et al., 2008; Lines, Selart, Espedal & Johansen, 2004). Senior managers may have a good birds-eye view of the organization, but frontline employees are often more knowledgeable about the operations of the organization. Their expertise may thus be used as important input in designing and implementing the organizational change. Organizational change theorists have also been critical about employee participation in organizational change. Organizational change in the public sector often emanates from higher level reforms and top-down policies.
formulated at the political level. Although examples of far-reaching employee participation in public sector change can be found (e.g. Van der Voet, Kuipers & Groeneveld, 2014), Dunphy and Stace (1988) argue that employee participation is often limited to determining the sub goals of a larger change effort that is being directed by senior managers. Moreover, many contemporary organizational changes in the public sector are primarily concerned with cost reduction and efficiency gains rather than improvement of service delivery (e.g. Wright et al., 2013). Such circumstances are ill-suited for employee participation, since decision-making is likely to be centralized to the higher management levels (Mintzberg, 1979). Finally, while it has been argued that employee participation may improve commitment to change because of its emphasis on shared vision, it may also prevent the emergence of radically new ideas and innovations (Dunphy & Stace, 1988). Despite these apprehensions, change leadership is expected to positively affect the commitment to change of change recipients by stimulating their participation in the implementation of change. The following hypotheses are proposed.

**H1a:** The positive relationship between change leadership and commitment to change is mediated by the quality of change communication.

**H1b:** The positive relationship between change leadership and commitment to change is mediated by the degree of employee participation.

**Bringing in the public sector:** Change leadership in a bureaucratic context
There is an elaborate literature on the specific characteristics of public sector organizations (e.g. Boyne, 2002; Rainey, 2014; By & MacLeod, 2009). Public organizations are often argued to be characterized by a bureaucratic organizational structure (Pandey & Moynihan, 2006; Wright & Pandey, 2010). Because of this, public organizations are, among others, typically characterized by considerable levels of red tape and a low degree of transformational leadership style among managers. To date, research has resulted in little empirical evidence about how such these characteristics affect the implementation of change in public organizations, let alone change leadership. In this section, it is argued that red tape and transformational leadership are relevant factors in the implementation of change in public organizations as both factors may moderate the relationship between change leadership and commitment to change.

A bureaucracy can be defined as an organization in which operations are to a large extent predetermined and predictable (Mintzberg, 1979). This is achieved through the formalization of organizational behavior. Formalization refers to the degree in which organizational activities are manifested in written documents regarding procedures, job descriptions, regulations and policy manuals (Rainey, 2014). Red tape is generally perceived as ineffective rules (Bozeman & Feeney, 2011). Red tape is thus necessarily a pathology. Formalization can be said to lead to red tape but is not by itself red tape (Pandey & Scott, 2002). Many definitions of red tape are abound, ranging from Bozeman’s (1993) stringent definition as “rules, regulations, and procedures that have a compliance burden but do not achieve the functional objective of the rule” to Al Gore’s (1993) more normative “good people trapped in bad systems.” According to Pandey and Scott (2002: 565): “red tape exists when managers view formalization as burdensome and detrimental to organizational
purposes”. Pandey and Garnett (2006) state that the position that public organizations are typically characterized by relatively high levels of red tape is supported by both theory and evidence.

Research on the consequences of red tape has mostly concentrated on organizational performance. There is substantial evidence that red tape negatively influences organizational performance (e.g. Pandey & Moynihan, 2006). Many organizational changes have thus been aimed at cutting red tape, but there has been little attention for how red tape affects the implementation of organizational change (Pandey & Moynihan, 2006). The relationship between leadership and red tape has also received little attention (Moynihan, Wright & Pandey, 2012). Moynihan et al. (2012) have shown how transformational leadership can alter civil servants’ perception of red tape. However, there is little work available on the relationship between red tape and change leadership. The literature contains several indications that high levels of red tape limit the extent to which change leadership contributes to high quality change information during organizational change. Pandey and Garnett (2006) argue that rigid rules and procedures can restrict managers’ formal and informal channels of communication. In addition, Pandey and Bretschneider (1997) argue that red tape may complicate communication in an organization. As a result, red tape may limit the opportunities for direct supervisors to clearly communicate the change to change recipients. In addition, other studies suggest that red tape is negatively related to risk-taking cultures and risk-taking among organizational members (Bozeman & Kingsley, 1998; Feeney & DeHart-Davis, 2008). Because risk and experimentation are inherent to more devolved, participatory change approaches (Brown & Osborne, 2013), red tape may limit the potential of change leadership to
stimulate employee participation in organizational change. The following hypotheses are proposed:

\textit{H2a: A high degree of red tape will weaken the positive relationship between change leadership and the quality of change communication.}

\textit{H2b: A high degree of red tape will weaken the positive relationship between change leadership and the degree of employee participation.}

Next to the prevalence of red tape, the bureaucratic nature of public organizations may result in a lower degree of transformational leadership styles among managers. Due to their bureaucratic nature, public managers are typically expected to rely to a lesser extent on a transformational leadership style (Pawar & Eastman, 1997; Shamir & Howell, 1999). Bureaucratic organizations rely on control-based mechanisms to direct organizational behavior, which provides a substitute for leadership based on influence or charisma. Similarly, Weber (1947) has argued that leadership in a bureaucracy is based on a rational, legal basis, rather than charisma. Although several studies have questioned to what extent public organizations are truly more bureaucratic than their private sector counterparts (Rainey & Bozeman, 2000; Pandey & Wright, 2006), Wright & Pandey (2010) argue that the relationship between the organizational structure and leadership styles is theoretically relevant, because the degree in which public organizations have bureaucratic characteristics can vary.

The implementation of organizational change is dependent on the characteristics of the leader (Fernandez & Pitts, 2007). Research on leadership styles indicates that certain styles are better equipped to handle situations of change than others (Pawar &
Eastman, 1997; Shamir & Howell, 1999). One of the dominant leadership theories is the theory of transformational leadership (Bass, 1985). The core of transformational leadership theory is that “by articulating a vision, fostering the acceptance of group goals, and providing individualized support, effective leaders change the basic values, beliefs, and attitudes of followers so that they are willing to perform beyond the minimum levels specified by the organization” (Podsakoff, MacKenzie & Bommer, 1996, p. 260). Although some studies have directly related transformational leadership to employee support to change (Van der Voet, 2014; Oreg & Berson, 2011), transformational leadership is not aimed at the implementation of a specific organizational change (Herold et al., 2008). Rather, transformational leaders aim to transform the values of their followers so that they value the interests of the group or organization above their personal interests (Bass, 1985). Nevertheless, in an attempt to integrate the literatures on transformational leadership and change leadership, several authors have outlined how leaders with a transformational leadership style may be uniquely effective change leaders (e.g. Eisenbach et al., 1999; Higgs & Rowland, 2011). Transformational leaders articulate desirable future visions for the organization, lead by example and intellectually stimulate their subordinates (Bass, 1985). Such behaviors are also highlighted in theories of change leadership (Herold et al., 2008; Fernandez & Rainey, 2006). Change leadership behaviors thus come more natural to leaders with a transformational leadership style, and can therefore be expected to be more impactful. Although limited empirical investigation concerning the interrelations of both leadership types exists (Higgs & Rowland, 2011), it is expected here that the change leadership behavior of direct supervisors with a transformational leadership style is more likely to result in high quality change communication and a high degree of employee participation. The following
hypotheses are proposed:

**H3a:** A high degree of supervisors’ transformational leadership style will strengthen the positive relationship between change leadership and the quality of change communication

**H3b:** A high degree of supervisors’ transformational leadership style will strengthen the positive relationship between change leadership and the degree of employee participation

The conceptual model of this study is given in figure 1.

3 Case selection, methods and measures

**Case selection**

To test the hypotheses of this study, quantitative methods were adopted. The main way of data collection was a survey among the personnel of the City Works Department of the Dutch city Rotterdam. This is a permanent organization focused on city maintenance and spatial upkeep. The organization consists purely of career civil servants, with top level managers that are directly accountable to their respective
political superiors (aldermen and the city council). Due to economic crisis, Rotterdam has initiated a reform program aimed at restructuring its administrative departments and centralizing their back offices. Similar organizational changes are currently being implemented by a large number of public organizations as a response to the economic crisis. The organizational changes are mainly concerned with efficiency gains and financial savings because of the financial crisis. This particular change is thus relevant for other government organizations, as many contemporary organizations are currently occupied with implementing efficiency related change (e.g. Wright et al., 2013; Isett, Sparer, Brown & Glied, 2012).

In exploratory interviews with managers prior to the collection of quantitative data, the organization is characterized as an organization with a long and valued history of over 147 years. The organization consists of two units, which are referred to here as unit A and unit B. At the moment of data collection, the organization was involved in the implementation of changes that were aimed at separating both units and merging them into separate administrative clusters. Given the rich history of the Public Works Department, this organizational change is likely to be a radical change for change recipients.

Prior to conducting a survey, interviews with key informants such as managers, HR advisors and members of the work council highlight the organization’s tendency to rely on a directive management style and its bureaucratic and hierarchical features. Until a few years ago, all employees were required to punch-in upon arrival and departure, and very few decisions would be taken without consent from the senior management board. Given the large differences in operations between teams in the organization, some consist of highly skilled engineers while others consist of workers that have only received internal training, considerable variation can be expected in
terms of organizational red tape and leadership styles of supervisors. These features arguably make this organization an appropriate case given the focus of this study on the bureaucratic characteristics of public organizations. Moreover, variation in terms of the degree of participation of change can be expected, as the approach to change adopted by unit B was more devolved and participative than the approach taken by unit A.

Methods and procedure

Data was collected using a survey among the employees of the organization. A pilot of the initial survey was done among a group of 10 employees in order to test the overall clarity of the study, as well as the time required to fully fill out the survey. This resulted in minor changes in the formulation of some of the items. The survey was then send to the employees of both unit A and B. Employees working in back offices such as HR and financial administration were not contacted, because they were involved in a different organizational change process. An invitation, written and signed by the executive managers of unit A and B, was included in order to urge employees to participate in the survey. In order to counter common method bias, the survey stressed anonymity of respondents in order to reduce evaluation apprehension and social desirability bias (Podsakoff et al., 2003). Moreover, separate sections of the survey were clearly labeled and the academic purpose of the questionnaire was not made explicit in order to prevent hypothesis guessing by employees (Brannick et al., 2010). A reminder to fill out the survey was send out to improve response rate.

The dataset consists of 515 respondents. This corresponds with a response rate of 35.5%. A comparison of the respondents’ personal characteristics and the
administrative systems of the organization indicates that the sample is representative for unit A and B. At the time the survey was conducted, the average age of employees in unit A and B was 47.1 years. The average age in the sample is 47.5 years. The percentage of women in unit A and B was 17.3%, compared to a percentage of 16% in the sample. All analyses were modeled using MPLUS software.

Measures

All variables were measured using validated measurement instruments. The measures for all concepts concern self-reports, which are appropriate given the focus of the study on employees as change recipients (Conway & Lance, 2010). Unless stated otherwise, all variables were measured on a five-point Likert scale, where 1 indicated ‘fully disagree’ and 5 indicated ‘fully agree’. All survey questions, including those not used for the purposes of this study, are given in appendix A.

Change leadership. Change leadership was measured using a seven-item scale proposed by Herold et al. (2008). The lead-in is: “Related to the specific change being implemented, my direct supervisor …” An example item is: “made it clear up front to those in our unit why the change was necessary”.

Quality of change communication. This concept was measured using a seven item scale by Bordia, Hunt, Paulsen, Tourish and Difonzo (2004). The lead-in of the measure is “The official information provided about the change …”. An example item is “Kept you informed throughout the change process, even after the official announcement”.
**Degree of participation.** The degree of participation was measured using a three item scale by Lines *et al.* (2005) with a seven point scale. An example item is “I was allowed to participate in the development of the change”.

**Commitment to change.** The six item scale for affective commitment to change by Herscovitch and Meyer (2002) was used. An example item is “I believe in the value of this change”.

**Red tape.** Red tape was measured using the single item measure proposed by (Pandey & Scott, 2002). The formulation of this item is: “If red tape is defined as burdensome administrative rules and procedures that have negative effects on the organization’s effectiveness, how would you assess the level of red tape in your organization?” Red tape was measured on scale ranging from 1 to 11, where 1 indicated ‘no red tape at all’ and 11 indicated ‘a very high level of red tape’. Pandey and Scott (2002) conclude that the single item measure is consistent with conceptual definitions of the concept. Moreover, this use of this measurement instrument has had consistent results (Bozem & Feeney, 2011).

**Transformational leadership style.** The transformational leadership measure of Podsakoff, MacKenzie, Moorman and Fetter (1990) was applied. This measure consists of 21 items and contains the dimensions articulating vision, providing appropriate model, fostering acceptance goals, high performance expectancy, individual support and intellectual stimulation. The lead-in is “My direct supervisor …”. An example item is “gets the group to work together for the same goal”.

**Control variables.** The analysis controls for the personal characteristics of respondents. Control variables for gender, age, years of tenure with the organization, and the respondent’s highest completed educational level are included in the analysis.
The highest completed educational level contained the following answers: 1) primary school, 2) lower secondary education, 3) higher secondary education, 4) lower professional education, 5) higher professional education / applied university and 6) university/academic degree. Moreover, the perceived impact and significance of the organizational change are included in the analysis in order to control for the content of change (cf. Herscovitch & Meier, 2002). Significance of change was measured using a seven-point Likert scale ranging from 1 (not significant) to 7 (very significant). The measure for impact of change addresses the perceived consequences of the change for the respondent’s job performance, the organizational climate and personal life. This concept was also measured on a seven-point Likert scale, where 1 indicated ‘very negative consequences’ and 7 indicated ‘very positive consequences’.

4 Analysis and results

In this section, the analysis and results of the study are presented. Anderson and Gerbing’s (1981) approach to structural equation modeling was followed, supplemented with other recommendations for reporting results and demonstrating construct validity (Williams, Vandenberg & Edwards, 2009; Fornell & Larcker, 1981). First, a confirmatory factor analysis (CFA) is executed to confirm the data’s factorial structure and to examine construct validity. Next, the descriptive statistics and correlations are presented and discussed. Finally, the structural model is tested in order to examine the study’s hypotheses.

Confirmatory factor analysis and construct validity
A CFA was executed to confirm the factorial structure of the study’s latent constructs. Transformational leadership was included in the measurement model using a secondary CFA approach. The construct’s items load on their respective dimensions, which in turn load on the overlying transformational leadership construct. All control variables were included in the measurement model. For all factor loadings of observed variables, a conservative cut-off point of .50 for factor loadings was applied. This resulted in the exclusion of item COM2. Following Farell and Rudd (2009), items CL4 and CL7 were removed because of high cross-loadings with transformational leadership construct. The fit indices of the measurement model indicate acceptable model fit with CMIN/DF = 2539.077/1147, CFI = .920, RMSEA = .049 and SRMR = .056.

In table 1, all factor loadings for the latent constructs are reported. Following Fornell and Larcker (1981) these constructs are then used to calculate the Average Variance Extracted (AVE) and Construct Reliability (CR) for all latent constructs. The AVE and CR values for all constructs are reported in table 2. The AVE for all constructs in the study is above the desirable thresholds of .5 for AVE and .7 for CR, thereby demonstrating convergent validity (Fornell & Larcker, 1981). In addition, Fornell and Larcker recommend that the squared correlation between any two variables should not exceed neither of their AVE values in order to demonstrate discriminant validity. The squared correlations between all latent variables are given in table 2. This table shows that Fornell and Larcker’s condition is met for all variables, indicating that the constructs are empirically distinct.

- Insert table 1 here -
Descriptive statistics

In table 3, the mean and standard deviation (S.D.) of variables are given. The control variables indicate the sample predominantly consists of male respondents. The average age of respondents is 47.5 years. On average, respondents have been employed by the organization for 16.8 years. The average education level is 4.44 which corresponds with a lower professional education and applied university. The relatively high S.D. indicates points at a high degree of variation. In effect, many employees have a relatively low education (mostly department B), while others have an applied university or academic degree (mostly department A).

Two control variables were included to account for the perceived content of change, both measured on a seven-point scale. The average impact of change is 3.52 and well below the mid-range of the measurement scale. This value indicates that the organizational change is perceived to have predominantly negative consequences for the organization. The average significance of change is 5.05, which shows that change recipients experience the organizational change as a relatively radical change.

The average change leadership behavior by respondents’ direct supervisor is valued with a score of 3.01. Respondents report relatively high levels of red tape. The average score for transformational leadership style is slightly above the scale’s mid-range with a score of 3.20. The quality of change communication and degree of participation in the change process are on average 2.77 and 2.30. These scores indicate that employees are slightly dissatisfied with the disseminated information.
about change, and that most employees feel that there was little emphasis on employee participation in the change process. The average commitment to change is 3.04. This score indicates that on average, there is neither a sense of affection of disaffection among employees concerning the organizational change.

- Insert table 3 here-
**Structural model**

Based on the hypotheses outlined in the theoretical section, a structural model was constructed. Because the hypotheses contain both mediating (H1a and H1b) and moderating relationships (H2a, H2b, H3a and H3b), Preacher, Rucker and Hayes’ approach (2007) for testing moderated mediation models was used. The fit indices for the structural model indicate acceptable model fit with CMIN/DF = 2690.702/1171, CFI = .911, RMSEA = .050 and SRMR = .070. All significant relationships are depicted in figure 2. The moderating relationships as depicted in figure 2 do not resemble the structural model that was tested. Following Preacher *et al.* (2007), interaction variables were defined in MPLUS. The mediating variables (communication and participation) were then regressed on the independent variable (change leadership), moderators (red tape and transformational leadership) and the defined interaction variables to test the moderating relationships. Standardized regression coefficients are depicted and standard errors are reported in parenthesis. For the moderating relationships, unstandardized regression coefficients are reported. In addition, the explained variance (r-square) for all dependent variables is reported in between brackets.

- Insert figure 2 here –

The structural model indicates that several control variables are significantly related to the study’s dependent variables. The data shows that the change process in
department B was characterized by a higher degree of employee participation. Furthermore, the structural model indicates that the more years an organizational member has worked in the organization, the less committed to change an employee is. This result can be explained from the particular context of the change, as the organizational change was aimed at breaking up an organization that had been in existence for 147 years. Next, the perceived impact of change is an important antecedent of the outcomes of change. When change recipients feel that the change has positive consequences, they are more likely to value the quality of change communication, participate in the implementation of change, and be committed to change.

The structural model indicates that change leadership is positively related to both the quality of change communication and the degree of participation. In turn, communication and participation are both positively related to change recipients’ commitment to change. In order to test H1a and H1b, the significance and effect size of the indirect relationships between change leadership and commitment to change were estimated using a bootstrapping method with 2000 iterations. This analysis indicates that the standardized regression coefficient for the total indirect relationship between change leadership and commitment to change is .119 with a significance level of p < .001. Both the path via communication and the path via participation are significant at the p < .05 level, with the effect size via communication path .074 and the effect size of participation .045. The data thus support H1a and H1b.

Furthermore, the structural model indicates that the indirect relationship between change leadership and change recipients’ commitment to change is moderated by red tape and transformational leadership style. More specifically, the results indicate that both red tape and transformational leadership affect the
relationship between change leadership and the degree of participation of change recipients. The interaction between red tape and change leadership is negatively related to participation (b = .046 with p < .01). The interaction between transformational leadership style and change leadership is positively related to participation (b = .119 with p < .05). However, red tape and transformational leadership do not moderate the relationship between change leadership and the quality of change communication. The model thus indicates that the data support H2b and H3b, but not H2a and H3a. The statistically significant moderating relationships are plotted in figure 3 and figure 4 in order to interpret the results.

- insert figure 3 here-

- insert figure 4 here –

Figure 3 shows that the slope that accounts for the relationship between change leadership and participation of change recipients is less positive in situations with a high degree of red tape. Red tape thus decreases the positive relationship between change leadership and employee participation. Figure 4 shows that a transformational leadership style enhances the relationship between change leadership behaviors and employee participation. Change leadership in combination with high degrees of transformational leadership result in higher degrees of employee participation than when combined with low levels of transformational leadership.
5 Discussion and conclusions

This study intends to make two contributions to the literature on change management in public organizations. First, the study aims to provide empirical evidence for the relationship between leadership and commitment to change in public sector organizational change. Although studies about organizational change in the public sector often make a case for the importance of leadership, little empirical evidence exists (Kuipers et al., 2014). This study draws on the change management literature in order to explain how direct supervisors’ change leadership may contribute to the commitment to change of change recipients by providing high quality change information and stimulating employee participation in the implementation of change.

The results of the analysis indicate that there is no direct relationship between change leadership and change recipients’ commitment to change, and confirm that the relationship between change leadership and employee commitment to change should be understood as an indirect relationship.

Most literature on change leadership in both the private sector (e.g. Herold et al., 2008) and the public sector (e.g. Hennessey, 1998; Fernandez & Rainey, 2006) has focused on the leadership of executive or senior management levels. This study, in contrast, looks at the role of direct supervisors in the implementation of change. The results thus indicate that lower management levels are able to contribute to support for change among change recipients. However, change leadership should not be seen as the task of either higher or lower level managers. Instead, it is a phenomenon that takes place on multiple levels at the same time, but more needs to
be known about how different levels of change leadership are interrelated (Kuipers et al., 2014). Researchers could investigate ways in which the complementarity of higher and lower level change leaders can be improved. For example, Allen, Jimmieson, Bordia and Irmer (2007) argue that change recipients prefer to receive strategic change information from senior management, but that the consequences for personnel should be communicate by direct supervisors. Other directions could be that change leadership at different hierarchical levels should consist of different behaviors and at different actors (e.g. Van der Voet, Kuipers & Groeneveld, 2014). Alternatively, stage-models of organizational change could be used to theorize and test to what extent different levels or types of change leadership should be present at different stages of the change process (Burke, 2002). In addition, future research could address the role of other leadership styles than change leadership and transformational leadership in organizational change. For example, transactional leadership could have a role in more directive organizational change initiatives (Pieterse, Van Knippenberg, Schippers & Stam, 2010), while servant leadership could be an appropriate leadership approach in more devolved or continuous organizational changes (Kool & Van Dierendonck, 2012).

The second intended contribution of this study is to advance the literature on change management in the public sector by explicitly accounting for the particular context of public sector organizations in the study’s variables. Many recent studies have focused on organizational change management in the public sector, and many of these studies have highlighted how the specific context of public sector could be an important factor in determining appropriate change management strategies and leadership behaviors (e.g. McNulty & Ferlie, 2004; By & Macleod, 2009). However, little studies have systematically investigated such statements. This study examines
the bureaucratic organizational structure that often applies to public organizations. As is outlined in the theoretical section of this study, bureaucratic organizations features include a tendency for red tape and a low reliance of managers on a transformational leadership style.

The results indicate that red tape is negatively relate to change recipients’ perception of the quality of change communication. The study thus provides support for assertions that red tape may complicate processes of communication in public organizations (Pandey & Garnet, 2006; Pandey & Bretschneider, 1997). However, the data do not support the expectation that red tape weakens the positive relationship between direct supervisors’ change leadership and the quality of change communication. A possible explanation may be that direct supervisors disseminate change information using personal or informal channels, which are to lesser extent distorted by organizational red tape. In contrast with senior managers, who typically communicate changes through e-mails, the organization’s intranet and at specific change-related events, direct supervisors can communicate through personal, informal channels, and on an everyday basis. This result indicates that direct supervisors are an important channel of communicating organizational change, especially in large, bureaucratic organizations.

As has been suggested in other studies (e.g. Fernandez & Pitts, 2007), the personal characteristics of managers matter during change. This study investigated how the transformational leadership style of direct supervisors moderates their change leadership behaviors. The analysis indicates that a transformational leadership style strengthens the relationship between change leadership behaviors and the participation of change recipients. By investigating the interactions between both leadership concepts, this study contributes to the integration of two separate
leadership paradigms. Transformational leadership is widely studied and is generally seen as an effective leadership style in times of organizational change (Pawar & Eastman, 1997; Shamir & Howell, 1999). Empirical studies have identified the concept as an antecedent of commitment to change (Herold et al., 2008; Oreg & Berson, 2011), and change management theorists have identified commonalities between transformational leadership and change leadership (Eisenbach et al., 1999; Higgs & Rowland, 2011). This study contributes to the integration of the two leadership concepts in a methodological way, by testing and conforming their convergent and discriminant validity, and in a theoretical way, by explaining and testing how the two concepts are interrelated in the implementation of organizational change. This study provides empirical support for the position that transformational leaders may be especially effective change leaders (Eisenbach et al., 1999; Higgs & Rowland, 2011).

A shortcoming of this study is that all data was collected among a single group of respondents at a single point in time. The cross-sectional analysis thus points toward significant relationships between concepts, but cannot identify causal effects. For such results, future research could apply experimental or longitudinal research designs. As is argued above, future research concerning organizational change in the public sector could also focus on taking into account different or multiple contextual factors that are relevant for public sector organizations, such as their complex and political organizational environment (Van der Voet, Kuipers & Groeneveld, 2014) or the role of the specific motivational bases of public sector employees during change (Wright et al., 2013). In addition, future research could look into the multi-level issues of change leadership by studying change leadership on multiple hierarchical levels.
Despite these limitations, this study has several practical implications. First, while many organizational changes and public sector reforms have focused on reducing bureaucratic red tape, this study indicates that red tape should not only be seen as an anticipated outcome of public sector change, but also as an important factor during change processes. Red tape can impede change communication and change leaders’ ability to foster employee participation. Second, this study indicates that public organizations could apply more devolved, participatory change approaches in order to create support for organizational change among employees. The results show that involving direct supervisors as change managers and stimulating employees to participate and be more than passive ‘change recipients’ are beneficial for commitment to change. At the same time, it is acknowledged here that participatory change approaches may not always be appropriate in the public sector. Organizational change often results from wider public sector reforms or policy changes, in which individual organizations, let alone employees, have little opportunity to shape or adjust the organizational change. In such changes, there is an additional risk that participation may be counter-beneficial as a means of creating support for change, because change recipients may get the feeling that all the important decisions have already been made, and that the participatory processes are simply a form of window-dressing. Employee participation and involving direct supervisors in change leadership may thus increase public organizations’ potential to create employee support for organizational change, but the use of such strategies must also be appropriate given the particular circumstances of organizational change in the public sector.

References:


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